From: <u>Bachman, Brenda</u>
To: <u>Anderson-Carnahan, Linda</u>

Subject: RE: Discovery Bay Study message responding to Tom Madsen

Date: Tuesday, April 04, 2017 1:15:34 PM

Attachments: DRAFT Discovery Bay Sampling Flow Chart 20170404.docx

Yes, Tom knows and is aware it affects our schedule. In general, your responses look adequate. We might consider talking about the flow chart with him. please see my greyed out areas which indicate TBC work. Should I set up a time to discuss? I'm free before our 3pm meeting today. Brenda

From: Anderson-Carnahan, Linda **Sent:** Tuesday, April 04, 2017 1:05 PM

To: Bachman, Brenda <bachman.brenda@epa.gov>

Subject: RE: Discovery Bay Study message responding to Tom Madsen

Thanks Brenda,

Some thoughts below for our response to Mr. Madsen – see what you think. Let's definitely coordinate on this one. BTW, does Tom know about Burt's situation?

Linda Anderson-Carnahan, Associate Director Office of Environmental Review and Assessment US EPA Region 10, OERA-140, Suite 900 1200 Sixth Ave, Seattle, Wa. 98101

phone: (206) 553-2601 cell: (206) 291-6879

From: Bachman, Brenda

Sent: Monday, April 03, 2017 12:39 PM

To: Anderson-Carnahan, Linda <<u>Anderson-Carnahan.Linda@epa.gov</u>> **Subject:** FW: Discovery Bay Study message responding to Tom Madsen

Linda,

I'd like to talk about the email below from Tom Madsen. He has a copy of our draft plan and the flow chart that clearly does not include sediment testing or information that would be a follow-up to the attached toxicity test results completed under the Nationwide permit as he alludes to in his email.

Thanks, Brenda

From: Shephard, Burt

Sent: Friday, March 31, 2017 1:30 PM

To: Bachman, Brenda < bachman.brenda@epa.gov >

Subject: FW: Discovery Bay Study message responding to Tom Madsen

Best regards,

Burt Shephard
Risk Evaluation Unit
Office of Environmental Review and Assessment (OERA-095)
U.S. Environmental Protection Agency, Region 10
1200 6th Avenue
Seattle, WA 98101

Telephone: (206) 553-6359

Fax: (206) 553-0119

e-mail: <u>Shephard.Burt@epa.gov</u>

"Facts are stubborn things, but statistics are more pliable"

- Mark Twain

From: Shephard, Burt

Sent: Thursday, March 30, 2017 4:48 PM

To: 'Tom Madsen' < tommadsen15@gmail.com>

Subject: RE: Discovery Bay Study

Tom,

The updated sampling plan is currently in internal quality assurance review by our analytical chemists, we'll send it once review is complete and any needed changes are made.

Best regards,

Burt Shephard
Risk Evaluation Unit
Office of Environmental Review and Assessment (OERA-095)
U.S. Environmental Protection Agency, Region 10
1200 6th Avenue
Seattle, WA 98101

Telephone: (206) 553-6359

Fax: (206) 553-0119

e-mail: <u>Shephard.Burt@epa.gov</u>

"Facts are stubborn things, but statistics are more pliable"

- Mark Twain

From: Tom Madsen [mailto:tommadsen15@gmail.com]

Sent: Wednesday, March 29, 2017 2:19 PM

To: Bachman, Brenda < <u>bachman.brenda@epa.gov</u>>; Shephard, Burt < <u>Shephard.Burt@epa.gov</u>>

Subject: Discovery Bay Study

Brenda, Burt: Could you please send the Final Plan for this project. Any sense of how long it will take for the QAPP to be finalized? Also what, if any, actions will change as a result of the Rambol Environ study "Toxicity Testing Results, Nationwide Permit NWS-2013-40, Snow Creek Esturary". No plans to change our approach; Mr. Madsen uses water (rather than sediment or sediment elutriate) in his operations to grow shellfish. I suspect it's not uncommon to find toxic sediments in area embayments due to wood waste. The study identified toxic sediments in Discovery Bay at the area that was dredged when our problem appeared. I would very much like any and all information that the EPA has about this study, in particular if a follow up was done that identified the toxins. This is not EPA's study and other than getting the report from Mr. Madsen we don't have any information on it. I will say that the 'discussion' section is probably pretty confusing for someone outside of the DMMP community. We might suggest that Tom contact the Wa Dept of Ecology for questions about the results relative to State sediment standards.

Mortality in adult oysters at our main farm over the winter was .2 and the survivors were universally discolored. So 20% of his adult oysters died over the winter – do we know what the normal mortality rate is for adult oysters over the winter.

There has been a recent barnacle set. The same happened last year, however during the spring the barnacles died and the shells dissolved away. Will monitor and let you know if these survive.

We continue to experience wide changes in salinity and find qualitative differences in the tissues of oysters grown subtidal (a few hundred feet from the tidelands) and those grown on the tidelands. Given the high level of rainfall this year (some of it record-breaking), wouldn't this be expected? Does your plan include testing sediments on the shore at our Farm? Our focus will continue to be on the water since that is what is being used in the shellfish hatchery (in theory, there should be no exposure of the shellfish larvae/seed to sediments).

When you obtain water for your tests what water is going to be tested? We plan to take water from the Bay, near the facility intake, as well as a sample of water that has passed through the shellfish rearing facility. Salinity and qualitative measurements indicate the water quality in this area is not stable. We are aware of the salinity fluctuations and if they are outside the survival range for the larvae, we will postpone the test until salinity levels are acceptable.

We have started up the water supply system that was used by the nursery last year. A large amount of sediment is forming in the tanks. Some of the sediment has a color similar to the precipitate (identified as Aluminum Sulfate) found last year. Sediments from last year are available. Does your plan include testing sediments in the system? No, our focus is going to be the water.

Sincerely,

Tom

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Tom Madsen
Port Discovery Seafarms
(360) 301-6868 (cell)
(360) 385-4808 (home)
2915 SR 20, Port Townsend, WA 98368